

Laminated Wood Utility Pole Inspection

Purpose: This technical bulletin provides field guidance for inspecting Laminated Wood Systems, Inc. (LWS) E-LAM® engineered laminated wood utility poles for conditions that may affect serviceability, climbability, structural performance, and remaining service life.

1. Scope and Application

This bulletin applies to in-service E-LAM® wood utility poles used for electric supply, communications, lighting, and related utility structures. It is intended for inspectors, maintenance crews, engineering personnel, and contractors performing visual pole-top and groundline inspections, as well as sounding and boring inspections.

E-LAM® wood pole inspection practices should be incorporated into the owner's normal round wood pole inspection cycle unless a shorter interval is required by regulation, utility policy, environmental exposure, observed deterioration, or engineering judgment. Common wood pole programs use approximately 10-year cycles, with longer cycles sometimes used in dry regions and shorter cycles used where conditions warrant.

2. Safety Requirements

- When there is evidence or reasonable doubt that a pole is structurally unsound, do not climb, work from, or alter loading in any way on the pole without first consulting with LWS.
- Follow all applicable utility work methods, traffic control requirements, fall protection rules, and electrical safety practices.
- Use qualified personnel for intrusive inspection and preservative application.
- Where required, restricted-use preservatives or pesticide products shall be applied only by or under the direction of properly licensed applicators.
- Consult with LWS for structural evaluation, and/or any repair or reinforcement decisions.

3. Inspection Procedure

3.1 Preliminary Visual Inspection

Inspect all accessible sides of the pole from the top down to the groundline, noting any visible mechanical damage, vehicle impact, fire damage, checking, open glue-line separations, excessive moisture staining, woodpecker damage, insect activity, and any decay indicators.

Inspect pole tops, caps, crossarms, braces, brackets, fasteners, and other attachments. Note any observed condition issues in these items from the ground.

Poles found to be serviceable after preliminary above ground inspection should be further inspected below grade. Excavate soil as needed to expose the portion of pole below groundline specified by the owner's inspection standard. Look for decay, softened wood, fungal growth, insect galleries, pockets, severe checks, delamination, preservative depletion, or moisture accumulation. Probe suspect areas carefully and determine whether deterioration is superficial, localized, internal, or structurally significant.

If the pole is found to be plainly non-serviceable after preliminary visual inspection, classify it for replacement without further intrusive inspection unless required for documentation.

3.2 Sounding Inspection

Poles found to be serviceable after preliminary visual inspection should be sounded with a light hammer around their full perimeter from the groundline to the maximum height accessible by the inspector above groundline.

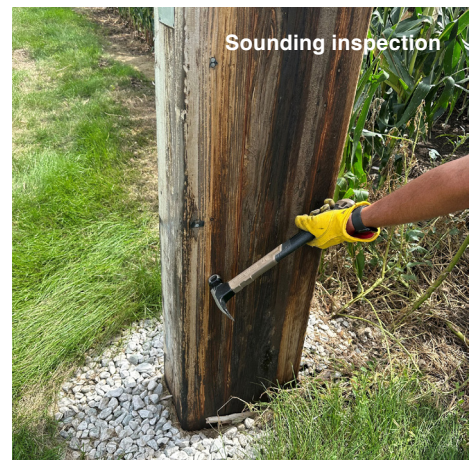
Hollow, dull, or inconsistent sounds should be marked and investigated further using boring, drilling, or other approved nondestructive or semi-destructive methods.

Wider first-generation poles that are manufactured using side-by-side layups may have a higher likelihood of internal degradation compared to similar second-generation poles that include PentaTrate®. Sounding inspections are a particularly important tool for assessing the condition of these older first-generation poles, especially their cut faces.

3.3 Boring or Drilling

Where visual evidence and/or sounding inspection indicate a possible internal condition issue, use a small-diameter drill, resistograph, or any other approved inspection device to confirm the presence and extent of decay or voids.

To the extent possible, note both height above/below grade and location within cross-section of any internal condition issues observed, as well as the size (width and depth) of the issue itself. This information is crucial to determine impact on remaining pole strength. Any poles found to have internal degradation should be submitted to LWS for engineering review.



4. Remedial Treatment and Repair

- Where decay pockets are found, flood internal cavities with an approved preservative or fumigant.
- Inspection holes should be closed with tight-fitting preservative-treated plugs after inspection.
- Consider supplemental groundline preservative paste and wrap for inspected poles, especially where soil exposure, moisture, or prior decay risk is present.
- Consult LWS for structural evaluation and/or any repair or reinforcement decisions. For these, remaining section, pole class, loading, attachment configuration, line angle, guying, conductor load, and all applicable engineering criteria will be considered.
- Do not rely on filler materials alone as structural repair unless specifically engineered and approved by the pole owner.
- Replace poles that do not meet serviceability and/or strength requirements or cannot be safely reinforced or repaired.